

What is claimed is:

1. An image processor, comprising:

a region discrimination unit which determines whether a target pixel is a pixel in a character edge region or a pixel in a continuous tone region based on image data in a reference pixel matrix including the target pixel;

a first processing unit which performs processing, including smoothing being a smoothing filter, on the image data; and

an image output unit which outputs image data processed by the first processing unit when the region discrimination unit determines that the target pixel is a pixel in the continuous tone region, wherein when said reference pixel matrix size in the region discrimination unit is  $n \times n$  pixels, and said smoothing filter size in the first processing unit is  $m \times m$  pixels, a relationship  $n \geq m$  holds, wherein said first processing unit further performs screening on the image data having undergone smoothing.

2. An image processor as claimed in claim 1,

wherein when the region discrimination unit determines that the target pixel is a pixel in the character edge region, the image output unit outputs image data without processing by the first processing unit.

3. An image processor as claimed in claim 1, further comprising:

a second processing unit which performs edge enhancement on the image data, wherein when the region discrimination unit determines that the target pixel is a

pixel in the character edge region, the image output unit outputs image data having been processed by the second processing unit.

4. An image processor, comprising:

a region discrimination unit which determines whether each pixel of image data is a pixel in a character edge region or a pixel in a continuous tone region;

a first tone reproduction unit which performs tone reproduction processing with an emphasis on resolution of the image data;

a second tone reproduction unit which performs tone reproduction processing with an emphasis on gradation on the image data; and

an image output unit which produces an output after performing the processing by the first tone reproduction unit or the processing by the second tone reproduction unit based on a result of the determination by the region discrimination unit, wherein

the processing by the second tone reproduction unit includes at least smoothing on the image data and screening on the image data having undergone smoothing,

the smoothing is performed to reduce moiré generated by screening, and

when a region discrimination size in the region discrimination unit is  $n \times n$  pixels and a size of a filter for the smoothing performed by the second tone reproduction unit is  $m \times m$  pixels, a relationship  $n \geq m$  holds.

5. An image processor as claimed in claim 4, wherein said image output unit outputs image data processed by the

first tone reproduction unit for a pixel determined to be a pixel in the character edge region by the region discrimination unit, and outputs image data processed, by the second tone reproduction unit for a pixel determined to be a pixel in the continuous tone region by the region discrimination unit.

6. An image processing method, comprising:

obtaining image data;

determining whether a target pixel is a pixel in a character edge region or a pixel in a continuous tone region based on image data in a reference pixel matrix including the target pixel; and

performing smoothing by a smoothing filter when the target pixel is determined to be a pixel in the continuous tone region by the region discrimination unit, performing screening on the image data having undergone smoothing, and outputting processed image data, wherein when a size of the reference pixel matrix is  $n \times n$  pixels and a size of the smoothing filter is  $m \times m$  pixels, a relationship  $n \geq m$  holds.